

GENERIC NAME:

NITROGLYCERIN

112.21

BRAND NAME: Nitrostat, Tridil

CLASS: vasodilator, organic nitrate, antianginal

Mechanism of Action:

Smooth muscle relaxant acting on vascular, uterine, bronchial, and intestinal smooth muscle

Reduces workload on the heart by causing blood pooling (decreased preload)

Arteriolar vasodilation (decreased afterload)

Coronary artery vasodilation

Increases blood flow to myocardium

Decreases myocardial O₂ demand

Indications and Field Use:

Angina

Myocardial infarction

Congestive heart failure with pulmonary edema

Contraindications:

Hypovolemia

Increased Intra cranial pressure

Adverse Reactions:

CV: Hypotension, reflex tachycardia, bradycardia, decreased coronary perfusion at high doses (secondary to hypotension), headache secondary to dilation of meningeal vessels.

NOTES ON ADMINISTRATION

Incompatibilities/Drug Interactions:

Other vasodilators

Viagra

Adult Dosage:

SL for Chest pain: 1/150 gr (0.4 mg) tablet or one full spray, may repeat x 3

SL for Pulmonary edema: 1-2 of the 1/150 gr (0.4 mg) tablets may be given SL every 5-10 minutes as long as the systolic BP is greater 90-100 systolic

GD-050-PHS-EMS: Drug Profile for Nitroglycerin

**** IV infusion during interfacility transport must be given via infusion pump:** Start at low range of 5 µg/min and increase in increments of 5 µg, monitoring pain and blood pressure until desired hemodynamic or clinical response is achieved (fall in SVR, relief of chest pain); most patients respond to 50-200 µg/min

Pediatric Dosage:

Not used

Routes of Administration:

IV or SL

**** IV infusion on interfacility transports; special training and infusion pump required**

Onset of Action:

Seconds

Peak Effects:

5-10 minutes

Duration of Action:

1-10 minutes after IV discontinued

Dosage Forms/Packaging:

Bottles of 25 1/150 grain/tablets

Spray Bottle with 200 metered doses, each 0.4 mg

IV form not carried on drug box, must use infusion pump for interfacility transfers

Arizona Drug Box Supply:

PARAMEDIC: 1 - 2 bottles of tablets, or 1 - 2 spray bottles

INTERMEDIATE: 1 - 2 bottles of tablets, or 1 - 2 spray bottles

Special Notes:

- > NTG is heat and light sensitive; stock rotation assures fresh supply.
- > SL: Cautiously administer NTG to a patient who has never received it, consider establishing an IV prior to administration.
- > Patients with hypotension should be administered this drug with caution.
- > Closely monitor vital signs, cardiac rhythm.

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- > Bradycardias and hypotension usually respond to Trendelenburg position; atropine and vasopressors may be administered if needed.
- > Monitoring IV nitroglycerin on patients during interfacility transport requires an infusion pump and is limited to prehospital providers that have completed a special training curriculum in accordance with their medical control authorities.

** Indicates special training requirement